

# *Trends and Issues in High School Scheduling*

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# Agenda

- Introduction
- A Brief History of High School Scheduling
- Analyzing and Comparing the Most Common High School Scheduling Formats
  - Single Period Models
  - Block and Combination Block/Period Models
  - The Intervention/Enrichment Period
- Using Time to Meet the Needs of Students
- Staff Development Needs
- Recommendations for Successful Implementation

## Summary of the Scheduling Trends in Virginia High Schools 1994-2006

### Single Period Schedule Trends

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-2003	2003-2004	2004-2005	2005-2006
6 period	55	52	42	35	24	12	9	6	7	8	8	6
7 period	133	104	79	72	69	74	70	66	64	66	66	60
8 period	3	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>191</b>	<b>156</b>	<b>121</b>	<b>107</b>	<b>93</b>	<b>86</b>	<b>79</b>	<b>72</b>	<b>71</b>	<b>74</b>	<b>74</b>	<b>66</b>

### Block Scheduling Trends

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-2003	2003-2004	2004-2005	2005-2006
6 A/B	16	13	12	14	7	5	6	6	7	7	0	0
7 A/B	39	52	69	74	86	82	90	92	89	89	94	89
8 A/B	10	6	8	10	11	22	27	31	34	38	42	58
4 x 4	28	58	78	84	93	97	94	95	100	97	93	95
Other	4	5	4	5	5	6	6	6	2	3	3	3
<b>Total</b>	<b>97</b>	<b>134</b>	<b>171</b>	<b>187</b>	<b>202</b>	<b>212</b>	<b>223</b>	<b>230</b>	<b>232</b>	<b>234</b>	<b>232</b>	<b>245</b>

# Factors Influencing Achievement

<b>School</b>	<b>Opportunity to learn</b> <b>Time</b> <b>Monitoring</b> <b>Pressure to achieve</b> <b>Parent involvement</b> <b>School climate</b> <b>Leadership</b> <b>Cooperation</b>
<b>Teacher</b>	<b>Instruction</b> <b>Curriculum design</b> <b>Planning</b>
<b>Student</b>	<b>Home atmosphere</b> <b>Prior knowledge</b> <b>Aptitude</b> <b>Interest</b>

Marzano, 2003



<b>Factor</b>	<b>Avg. ES</b>	<b>Percentile Gain</b>
<b>Opportunity to Learn</b>	<b>.88</b>	<b>31</b>
<b>Time</b>	<b>.39</b>	<b>15</b>
<b>Monitoring</b>	<b>.30</b>	<b>12</b>
<b>Pressure to achieve</b>	<b>.27</b>	<b>11</b>
<b>Parental involvement</b>	<b>.26</b>	<b>10</b>
<b>School climate</b>	<b>.22</b>	<b>8</b>
<b>Leadership</b>	<b>.10</b>	<b>4</b>
<b>Cooperation</b>	<b>.06</b>	<b>2</b>

Marzano, 2003

“We should strive for a school schedule that is flexible enough to provide more learning time for students who need it and more choices for those who don’t need more learning time.

“If all you’re going to do is dispense information to kids, I don’t need you. I can get that done cheaper and better on-line. On the other hand if you are willing to teach, coach, assess, re-teach, re-test, and generally help students to be successful, maybe we still can do business.”

Comment made to a teacher  
by a superintendent in Ohio.

# Criteria for Comparison of Schedules

- Time per course
- Choices available
- Cost
- Student Load
- Teacher Load
- Percentage of Core (assuming 1 class (period or block) of E,M,SS, and SC per year)
- Meeting format: daily (yearlong), every-other-day (yearlong), daily (semester)

# 6-Period Day (Lunch Built Around Periods)

Period 1
Period 2
Period 3
Period 4
Period 5
Period 6

- Time per course-57 x 180
- Choices available-6
- Cost Factor- 5/6 (83%)
- Student Load-6
- Teacher Load-5
- Percentage Core-67%
- Meeting format: daily-yearlong

# 6-Period Advantages

- Daily meeting
- Total time per course-More than all but 6 A/B
- Percentage of core-67% is more than all others and equivalent to the 6 A/B
- Cost- Same as 6 A/B; more than 6/7 or 7/8; less than all others.

# 7-Period Day (Lunch Built Around Periods)

Period 1
Period 2
Period 3
Period 4
Period 5
Period 6
Period 7

- Time per course-48 x 180
- Choices available-7
- Cost Factor- 5/7 (71%), 6/7 (86%)
- Student Load-7
- Teacher Load-5 or 6
- Percentage Core: 57%
- Meeting format: daily-yearlong

# 7- Period Advantages

- Daily meeting
- Total time per course (less than 6-period, 6 A/B and 7 A/B; more than 8-period, 8 A/B, 4X4, and Hybrid 4X4)
- Percentage of core (less than 6-period and 6 A/B; more than 8-period, 8 A/B, 4X4 and Hybrid 4X4)
- Choice (one more than 6-period; one less than 8-period, 8 A/B, 4X4, and Hybrid 4X4)



# 8-Period Day (Lunch is a Period)

Period 1
Period 2
Period 3
Period 4L
Period 5L
Period 6L
Period 7
Period 8

- Time per course-46 x 180
- Choices available-7
- Cost Factor- 5/7 (71%), 6/7 (86%)
- Student Load-7
- Teacher Load-5 or 6
- Percentage Core: 57%
- Meeting format: daily-yearlong

# 8 Period (Lunch is a Period) Advantages

- Daily meeting
- Total time per course (less than 6 period, 7 period, 8 period (w/30 min. lunch), 6 A/B, and 7 A/B; more than 8 A/B, 4X4, and Hybrid 4X4)
- Percentage of core (less than 6 period and 6 A/B; more than 8 period, 8 A/B, 4X4 and Hybrid 4X4)
- Choice (one more than 6-period; one less than 8-period, 8 A/B, 4X4, and Hybrid 4X4)
- Scheduling ease (8 slots for singletons)

# 8-Period Day (Lunch Built Around Periods)

<b>Period 1</b>
<b>Period 2</b>
<b>Period 3</b>
<b>Period 4</b>
<b>Period 5</b>
<b>Period 6</b>
<b>Period 7</b>
<b>Period 8</b>

- Time per course-43 x 180
- Choices available-8
- Cost Factor- 5/8 (62.5%), 6/8 (75%), 7/8 (87.5%)
- Student Load-8
- Teacher Load-5, 6, or 7
- Percentage Core: 50%
- Meeting format: daily-yearlong

# 8 Period (Lunch Built Around Periods)

## Advantages

- Daily meeting
- Choice (Same as 8 A/B, 4X4, and Hybrid 4X4; more than all others.)
- Flexibility for double-dosing
- Guaranteed lunch

# 9-Period Day

<b>Period 1</b>
<b>Period 2</b>
<b>Period 3</b>
<b>Period 4L</b>
<b>Period 5L</b>
<b>Period 6L</b>
<b>Period 7</b>
<b>Period 8</b>
<b>Period 9</b>

- Time per course-40 x 180
- Choices available-8
- Cost Factor- 5/8 (62.5%), 6/8 (75%), 7/8 (87.5%)
- Student Load-8
- Teacher Load-5, 6, or 7
- Percentage Core: 50%
- Meeting format: daily-yearlong

# 9 Period (Lunch is a Period) Advantages

- Daily meeting
- Choice (Same as 8 A/B, 4X4, and Hybrid 4X4; more than all others.)
- Flexibility for double-dosing
- Ease of scheduling (9 slots for singletons)

# Science Lab Options in Single-Period Schedules: Teacher Schedule

Period 1	Chem. S1			
Period 2	D1 Lab. S1	Plan	D3 Lab. S2	Plan
Period 2	Chem. S2			
Period 4L	Plan			
Period 5L	Lunch			
Period 6L	Chem. S3			
Period 7	Plan	D2 Lab. S3	Plan	D4 Lab. S4
Period 8	Chem. S4			

# Science Lab Options in Single-Period Schedules: Student Schedule

Period 1	Chemistry			
Period 2	D1 CH. Lab.	D2 PE	D3 Study	D4 PE
Period 2	Math Analysis			
Period 4L	U.S. History			
Period 5L	Lunch			
Period 6L	English 11			
Period 7	Wind Ensemble			
Period 8	Spanish 4			



# How many periods?

6, 7, 8, 9,  
10???

# Why Have Schools Moved to Block Schedules?

- To allow/encourage teaching in depth and higher level thinking skills,
- To maintain/expand choice in the face of increasing core credit requirements for graduation,
- To permit more (or less time) for students to attain high levels of mastery on state accountability tests,
- To improve school management, and/or
- To reduce stress, for both students and teachers, yet still offer a broad and rigorous curriculum.

# What mistakes have some schools made when implementing block schedules?

- The use of a flawed decision-making process to adopt a block schedule.
- Poor preparation for teaching in the block, including insufficient staff development and/or inattention to course pacing.
- Unclear goals, over-promising or not meeting promises made.
- Poor scheduling decisions in the adoption phase.
- Budgetary concerns.
- The lack of a rigorous formal evaluation.

# 6 A/B Schedule

	A Day	B Day
Block 1	Class 1	Class 2
Block 2	Class 3	Class 4
Block 3	Class 5	Class 6

- Time per course-119 x 90
- Choices available-6
- Cost Factor- 5/6 (83%)
- Student Load-6
- Teacher Load-5
- Percentage Core: 67%
- Meeting format: E-O-D-yearlong

## 6-A/B Advantages

- Total time per course-More than all other schedules listed.
- Percentage of core-67% is more than all others and equivalent to the 6-period.
- Cost- Same as 6 period; more than 6/7 or 7/8; less than all others.

## 7 A/B Schedule (Atlee High School)

	M	T	W	R	F
<b>Block 1</b> (100)	1	2	1	2	1
					2
<b>Block 2</b> (100)	3	4	3	4	3
					4
<b>Block 3</b> (82)	5 and Lunch	5 and Lunch	5 and Lunch	5 and Lunch	5 and Lunch
<b>Block 4</b> (100)	7	6	7	6	6
					7

- Time per course-  
100 x 90 or 50 X  
180
- Choices available-7
- Cost Factor- 5/7  
(71%), 6/7 (86%)
- Student Load-7
- Teacher Load-5 or 6
- Percentage Core:  
57%
- Meeting format: E-  
O-D yearlong or  
daily-yearlong

## 7- A/B Advantages

- Total time per course (less than 6-period and 6 A/B; more than 7-Period, 8-period, 8 A/B, 4X4, and Hybrid 4X4)
- Percentage of core (same as 7-period, less than 6-period and 6 A/B; more than 8-period, 8 A/B, 4X4, and Hybrid 4X4)
- Choice (one more than 6-period; one less than 8-period, 8 A/B, 4X4, and Hybrid 4X4)
- Daily student load
- Daily teacher load

# 8 A/B Schedule

	A Day	B Day
Block 1	Class 1	Class 2
Block 2	Class 3	Class 4
Block 3	Class 5	Class 6
Block 4	Class 7	Class 8

- Time per course-88 x 90
- Choices available-8
- Cost Factor- 5/8 (62.5%), 6/8 (75%), 7/8 (87.5%)
- Student Load-8
- Teacher Load-5, 6, or 7
- Percentage Core: 50%
- Meeting format: E-O-D-yearlong



# 8 A/B Block and Single Period Hybrid Schedule

	M	T	W	TH	F
<b>Period 1</b>	<b>Class 1</b>	<b>Class 1</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 1</b>
<b>Period 2</b>	<b>Class 2</b>	<b>Class 2</b>			<b>Class 2</b>
<b>Period 3</b>	<b>Class 3</b>	<b>Class 3</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 3</b>
<b>Period 4</b>	<b>Class 4</b>	<b>Class 4</b>			<b>Class 4</b>
<b>Period 5</b>	<b>Class 5</b>	<b>Class 5</b>	<b>Class 5</b>	<b>Class 6</b>	<b>Class 5</b>
<b>Period 6</b>	<b>Class 6</b>	<b>Class 6</b>			<b>Class 6</b>
<b>Period 7</b>	<b>Class 7</b>	<b>Class 7</b>	<b>Class 7</b>	<b>Class 8</b>	<b>Class 7</b>
<b>Period 8</b>	<b>Class 8</b>	<b>Class 8</b>			<b>Class 8</b>

# 8 A/B Block and Single Period Hybrid Schedule (4-day block)

	M	T	W	TH	F
<b>Period 1</b>	<b>Class 1</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 1</b>	<b>Class 2</b>
<b>Period 2</b>	<b>Class 2</b>				
<b>Period 3</b>	<b>Class 3</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 3</b>	<b>Class 4</b>
<b>Period 4</b>	<b>Class 4</b>				
<b>Period 5</b>	<b>Class 5</b>	<b>Class 5</b>	<b>Class 6</b>	<b>Class 5</b>	<b>Class 6</b>
<b>Period 6</b>	<b>Class 6</b>				
<b>Period 7</b>	<b>Class 7</b>	<b>Class 7</b>	<b>Class 8</b>	<b>Class 7</b>	<b>Class 8</b>
<b>Period 8</b>	<b>Class 8</b>				

# Benefits of the Alternate day Block Schedule

- Longer classes encourage teaching with a variety of instructional models.
- Fewer “start-ups” and “endings” result in more useable instructional time.
- Fewer class changes improve school climate, discipline, and cleanliness.
- Because teachers see fewer students daily they know students better and are able to give more individual assistance.
- Compared to every day models, students have fewer classes, quizzes, tests, and homework assignments on any one day.

# Issues to Be Addressed in the Alternate Day Block Schedule

- Attention Span
- Teacher planning
- Lunch periods
- Absences
- Review
- “Sink time”
- To float or not to float
- Equalizing students’ load
- Block vs. single period in 7 course plans
- Teaching in the Block

# 4 X 4 Schedule

	Sem. 1	Sem. 2
Block 1	Class 1	Class 2
Block 2	Class 3	Class 4
Block 3	Class 5	Class 6
Block 4	Class 7	Class 8

- Time per course-88 x 90
- Choices available-8
- Cost Factor- 5/8 (62.5%), 6/8 (75%), 7/8 (87.5%)
- Student Load-8
- Teacher Load-5, 6, or 7
- Percentage Core: 50%
- Meeting format: Daily-semester

# 4X4 Advantages

- Choice (Same as 8 A/B, 4X4, and Modified 4X4; more than all others.)
- Flexibility for double-dosing
- Daily and semester teacher load
- Daily and semester student load
- Acceleration and credit recovery possibilities

## Adaptations Needed for the 4X4

- Performing Arts
- AP or IB
- Special Education
- Foreign Language

# The 4 X 4 Schedule

## (Music Variation 1)

	Semester I	Semester II
Block I	1	2
Block II	3	4
Block III	5	6
Block IV	Marching Band	Concert Band

# The 4 X 4 Schedule

## (Music Variation 3)

	Semester I	Semester II
Block I	1	2
Block II	3	4
Block III	5	6
Block IV	Day 1: Band, Choir, Journ., PE/H, etc.	
	Day 2: Orchestra, Jazz Band, Chorale, comp., PE/H, etc.	



# AP Options

- One semester-one credit
- Two semesters AP-two credits
- One semester Pre-requisite; one semester AP-two credits
- A/B AP courses-one credit
- 3-9 Weeks AP+ 1 9-Week Elective

# The 4 X 4 Schedule (AP Variations)

	Semester I	Semester II
Var. 1	45 minutes: AP English	
	45 minutes: AP Government and Economics	
Var. 2	27 Weeks AP	9 Weeks Elective
Var. 3	Day 1: AP Gov't & Econ or CP Gov't & Econ.	
	Day 2: AP English or CP English 12.	
Var. 4	9 Weeks Elective	27 Weeks AP
Var. 5	Semester 1 Prerequisite	Semester 2 AP Course

# The 4 X 4 Schedule

(Special Ed. Variation 1)

	Semester I	Semester II
Block I	Required Course 1	Required Course 2
Block II	Required Course 3	Required Course 4
Block III	Elective Course 1	Elective Course 2
Block IV	Resource Support Class	

# The 4 X 4 Schedule

## (Special Ed. Variation 2)

	Semester I	Semester II
Block I	Required Course 1	Required Course 2
Block II	Required Course 3	Required Course 4
Block III	Elective Course 1	Elective Course 2
Block IV	Resource Support Class & Required Course 5 (i.e. SPED English)	

# The 4 X 4 Schedule

## (Foreign Language Sequencing A)

	Semester I	Semester II
Year 1	Spanish 1	Spanish 2
Year 2	Spanish 3	Spanish 4
Year 3	Spanish 5	AP Spanish
Year 4	Other Language	

# The 4 X 4 Schedule

## (Foreign Language Sequencing B)

	Semester I	Semester II
Year 1	Spanish 1	Spanish 2
Year 2	Spanish 3 Either Semester	
Year 3	Spanish 4 Either Semester	
Year 4	Spanish 5	AP Spanish

# The Hybrid 4 X 4 Schedule with a Limited Number of Yearlong Embedded A/B Classes or “Skinnies”

	Semester I	Semester II
Block I	1	2
Block II	Day 1 Course 3	Day 2 Course 4
Block III	5	6
Block IV	Course 7 Everyday Yearlong “Skinny”	
	Course 8 Everyday Yearlong “Skinny”	

# Hybrid 4X4 Advantages

- Choice (Same as 8-Period, 8 A/B, 4X4; more than all others.)
- Flexibility for double-dosing
- Daily and semester teacher load
- Daily and semester student load
- Mitigates testing and continuity concerns related to the 4X4 for certain courses



# 5 Block Trimester Schedule

	60 Days	60 Days	60 Days
Block 1	Class 1 .5 CR	Class 6 .5 CR	Class 11 .5 CR
Block 2	Class 2 .5 CR	Class 7 .5 CR	Class 12 .5 CR
Block 3	Class 3 .5 CR	Class 8 .5 CR	Class 13 .5 CR
Block 4	Class 4 .5 CR.	Class 9 .5 CR.	Class 14 .5 CR.
Block 5	Class 5 .5 CR	Class 10 .5 CR	Class 15 .5 CR

- Time per course-69 x 120
- Choices available-7.5
- Cost Factor- 4/5 (80%)
- Student Load-5
- Teacher Load-4
- Percentage Core: 4/7.5 (53%)
- Meeting format: Daily-trimester

# 5-Block Advantages

- Choice (7.5)
  - Flexibility for 1.5 credit classes
  - Daily and trimester teacher load
  - Daily and trimester student load
  - More days of contact than 4X4

# 5-Block Adaptations Needed

- Performing Arts
  - AP or IB
- Special Education

# Time Comparison Chart

	<b>6 Period+3 0 Min. Lunch</b>	<b>7 Period+3 0 Min. Lunch</b>	<b>8 Period (1 Period Lunch)</b>	<b>8 Period+3 0 Min. Lunch</b>	<b>9 Period (1 Period Lunch)</b>	<b>6 A/B +30 Min. Lunch</b>	<b>7 A/B +30 Min. Lunch</b>	<b>5 Block Trimester + 30 Min. Lunch</b>	<b>8 A/B, 4X4, Hybrid +30 Min. Lunch</b>
<b>Homeroom</b>	13	14	12	11	10	13	15	15	13
<b>Passing Time</b>	35	40	40	45	50	20	25	30	25
<b>Lunch</b>	30	30		30		30	30	30	30
<b>Class Length</b>	57	48	46	43	40	119	3 X 100 1X 50	69	88
<b>Total</b>	420	420	420	420	420	420	420	420	420
<b>Time Per Course</b>	10,260	8,640	8,280	7,740	7200	10,710	9,000	8280	7920
<b>Choices</b>	6	7	7	8	8	6	7	7.5	8
<b>Class Meetings per Year</b>	180	180	180	180	180	90	90 or 180	120	90
<b>% Core (E,M,SC,SS)</b>	5/6 (67%)	4/7 (57%)	4/7 (57%)	4/8 (50%)	4/8 (50%)	5/6 (67%)	4/7 (57%)	4/7.5 (53%)	4/8 (50%)

**All computations based on a 7 hour (420 minutes) student day.**

# Cost Comparison Chart

	<b>8-Period, 8 A/B, 4X4, or Hybrid; Teach 7</b>	<b>7 Period or 7 A/B; Teach 6</b>	<b>6- Period or 6 A/B; Teach 5</b>	<b>5 Block Trimester; Teach 4</b>	<b>8-Period, 8 A/B, 4X4, or Hybrid; Teach 6</b>	<b>7-Period or 7 A/B; Teach 5</b>	<b>8 A/B, 4X4, Hybrid; Teach 5</b>
<b>Student Load</b>	<b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>8</b>	<b>7</b>	<b>8</b>
<b>Teacher Load</b>	<b>7</b>	<b>6</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>5</b>	<b>5</b>
<b>Cost Factor</b>	<b>87.5%</b>	<b>86%</b>	<b>83%</b>	<b>80%</b>	<b>75%</b>	<b>71%</b>	<b>62.5%</b>



# School Factors Related to Improving Student Achievement

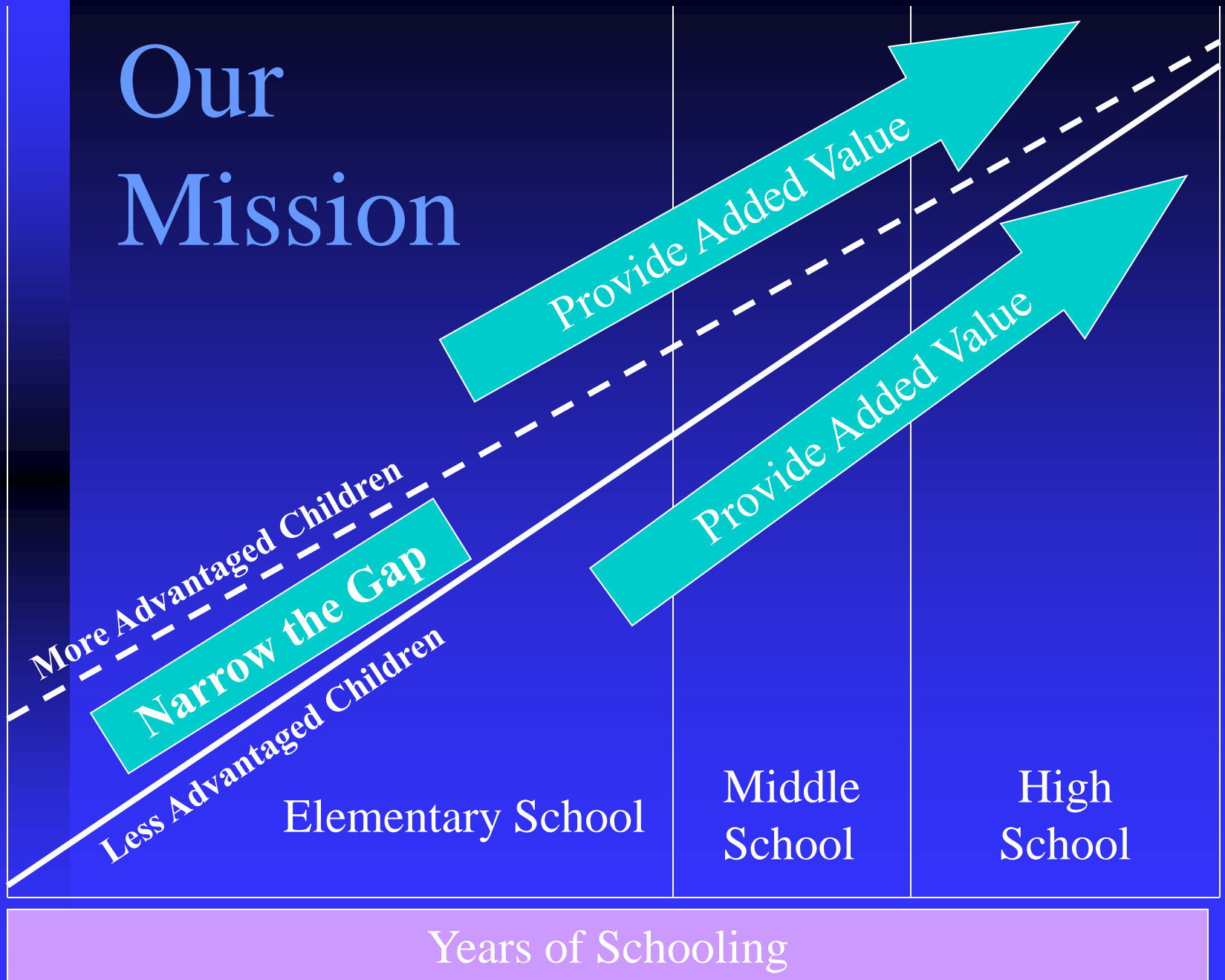
- Balance the workload of students.
- Balance the workload of teachers.
- Provide extended learning time.
- Provide time in the master schedule for tutorials.
- Create a small group, caring learning environment
- Alter policies and grading practices that focus on “sorting and selecting” vs. “teaching and learning.”
- Increase the amount of time students are actively engaged in their learning.

# What do Effective High Schools Do?

- Set high expectations for all students.
- Encourage more students to take rigorous programs (pre-AP, pre-IB, School-to-Work, dual enrollment, AP, IB).
- Create structures and supports to help students who have not traditionally been enrolled in these more rigorous curricula to be successful.
- Personalize the high school environment.

# Our Mission

Achievement Level



# RTI Student Tiers

- Tier 1: About 80% of students learn basic curriculum through typical instruction w/differentiation.
- Tier 2: About 15-20% of students need regular intervention; generally this is provided by special service providers or classroom teachers during the I/E period.
- Tier 3: About 2-5% of students need long-term and intensive intervention; faithful implementation of RTI requires that this intervention be in addition to the Tier 2 intervention, though in some schools it replaces the Tier 2 intervention.



# The Intervention/Enrichment Period

GARNET VALLEY HIGH SCHOOL Bell Schedule 2008-2009			
PERIOD 1		7:30 - 8:50	80 minutes
class change			5 minutes
PERIOD 2		8:55 - 10:18	83 minutes
class change			5 minutes
ENHANCEMENT		10:23 - 11:08	45 minutes
class change			5 minutes
LUNCH 1 11:13 - 11:43 <i>30 minutes</i>	PERIOD 3 11:13 - 11:53 <i>40 minutes</i>	PERIOD 3  11:13 - 12:34 <i>81 minutes</i>	114 minutes TOTAL
PERIOD 3  11:46 - 1:07  <i>81 minutes</i>	LUNCH 2 11:55 - 12:25 <i>30 minutes</i>		
	PERIOD 3 12:26 - 1:07 <i>40 minutes</i>		
	LUNCH 3 12:37 - 1:07 <i>30 minutes</i>		
class change			5 minutes
PERIOD 4		1:12- 2:32	80 minutes

# Sample “Enhancement Period” Schedule

Teacher	A Day	B Day	C Day	D Day	E Day	F Day
Math TA	Dept.	ALG. 1 Int.	Advisory	ALG. 1 Int.	Math Club	Alg. 1 Int.
Math TB	Dept.	AP Calc. Help	Advisory	ALG. 2 Int.	AP Calc. Help	ALG. 2 Int.
SS TA	Forensics	Dept.	Advisory	WH Int.	WH Int.	Project Groups
SS TB	US H Int.	Dept.	Advisory	US H Int.	US H Int.	Stu. Gov't
SC TA	AP Bio. Help	Bio. Int.	Advisory	Dept.	Bio. Int.	Bio. Int.
SC TB	AP Chem. Help	Chem. Int.	Advisory	Dept.	Chem. Int.	Chem. Int.
Spanish	SP I Int.	SP Club	Advisory	SP 1 Int.	Dept.	SP 2 Int.
Eng. TA	Eng. 9 Int.	Eng. 10 Int.	Advisory	Eng. 9 Int.	Dept.	Eng. 10 Int.
Eng. TB	Writing Lab	Eng. 12 Int.	Advisory	Eng. 11 Int.	Dept.	AP Eng. Help
Band	Band	Jazz Band	Advisory	Band	Jazz Band	Dept.
Choir	Girls CH	Choral	Advisory	Girls CH	Choral	Dept.
SPED	Learning Support	Learning Support	Advisory	Learning Support	Learning Support	Dept.
Attendance	Make-up	Make-up	Advisory	Make-up	Make-up	Make-up
CTE TA	LAB	LAB	Advisory	U Tube	LAB	Dept.

# Westfield HS, Fairfax County, VA morphed from this...

## 2009-10 Regular Bell Schedule (Monday, Wednesday, Thursday)

TIME	A	B
7:20-9:08	Period 1	Period 2
9:16-10:54	Period 3	Period 4
11:02-1:02	Period 5	Period 6
<b>A Lunch</b>		
Lunch 11:02-11:32		
Class 11:37-1:02		
<b>B Lunch</b>		
Class 11:02-11:32		
Lunch 11:32-12:02		
Class 12:07-1:02		
<b>C Lunch</b>		
Class 11:02-12:02		
Lunch 12:02-12:32		
Class 12:37-1:02		
<b>D Lunch</b>		
Class 11:02-12:32		
Lunch 12:32-1:02		
1:10-2:05	Period 7	Period 7

## 2009-10 Bulldog Block Schedule (Tuesday & Friday)

TIME	A	B
7:20-8:44	Period 1	Period 2
8:52-9:32	Bulldog Block	Bulldog Block
9:40-10:54	Period 3	Period 4
11:02-1:02	Period 5	Period 6
<b>A Lunch</b>		
Lunch 11:02-11:32		
Class 11:37-1:02		
<b>B Lunch</b>		
Class 11:02-11:32		
Lunch 11:32-12:02		
Class 12:07-1:02		
<b>C Lunch</b>		
Class 11:02-12:02		
Lunch 12:02-12:32		
Class 12:37-1:02		
<b>D Lunch</b>		
Class 11:02-12:32		
Lunch 12:32-1:02		
1:10-2:05	Period 7	Period 7

# To this: Westfield HS, Fairfax County, VA

## 2011-12 Daily Bulldog Block Schedule

TIME	A	B
7:20-8:50	Period 1	Period 2
8:56-9:31	Bulldog Block	Bulldog Block
9:37-11:02	Period 3	Period 4
11:06-1:07	Period 5	Period 6
<b>A Lunch</b>		
Lunch 11:06-11:32		
Class 11:42-1:07		
<b>B Lunch</b>		
Class 11:08-11:37		
Lunch 11:37-12:07		
Class 12:12-1:07		
<b>C Lunch</b>		
Class 11:08-12:07		
Lunch 12:07-12:37		
Class 12:42-1:07		
<b>D Lunch</b>		
Class 11:08-12:37		
Lunch 12:37-1:07		
1:13-2:05	Period 7	Period 7

### Bulldog Block Rules:

[http://www.fcps.edu/WestfieldHS/about\\_whs/bulldog\\_block.pdf](http://www.fcps.edu/WestfieldHS/about_whs/bulldog_block.pdf)

## 8 A/B Schedule with I/E

	A Day	B Day
Block 1	Class 1	Class 2
Intervention/Enrichment		
Block 2	Class 3	Class 4
Block 3	Class 5	Class 6
Block 4	Class 7	Class 8

# 8 A/B Block and Single Period Hybrid Schedule w/I/E (2-day block)

	M	T	W	TH	F
<b>Period 1</b>	<b>Class 1</b>	<b>Class 1</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 1</b>
<b>Period 2</b>	<b>Class 2</b>	<b>Class 2</b>			<b>Class 2</b>
<b>Period 3</b>	<b>Class 3</b>	<b>Class 3</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 3</b>
<b>Period 4</b>	<b>Class 4</b>	<b>Class 4</b>			<b>Class 4</b>
<b>Period 5</b>	<b>Class 5</b>	<b>Class 5</b>	<b>Class 5</b>	<b>Class 6</b>	<b>Class 5</b>
<b>Period 6</b>	<b>Class 6</b>	<b>Class 6</b>			<b>Class 6</b>
<b>Period 7</b>	<b>Class 7</b>	<b>Class 7</b>	<b>Class 7</b>	<b>Class 8</b>	<b>Class 7</b>
<b>Period 8</b>	<b>Class 8</b>	<b>Class 8</b>			<b>Class 8</b>

# 8 A/B Block and Single Period Hybrid Schedule w/I/E (4-day block)

	M	T	W	TH	F
<b>Period 1</b>	<b>Class 1</b>	<b>Class 1</b>	<b>Class 2</b>	<b>Class 1</b>	<b>Class 2</b>
<b>Period 2</b>	<b>Class 2</b>				
		<b>I/E</b>	<b>I/E</b>	<b>I/E</b>	<b>I/E</b>
<b>Period 3</b>	<b>Class 3</b>	<b>Class 3</b>	<b>Class 4</b>	<b>Class 3</b>	<b>Class 4</b>
<b>Period 4</b>	<b>Class 4</b>				
<b>Period 5</b>	<b>Class 5</b>	<b>Class 5</b>	<b>Class 6</b>	<b>Class 5</b>	<b>Class 6</b>
<b>Period 6</b>	<b>Class 6</b>				
<b>Period 7</b>	<b>Class 7</b>	<b>Class 7</b>	<b>Class 8</b>	<b>Class 7</b>	<b>Class 8</b>
<b>Period 8</b>	<b>Class 8</b>				

# Key Factors: High School I/E and RTI

- Scheduling the Intervention/Enrichment period is easy compared to organizing and preparing for instruction within it.
- All students and staff must be productively engaged during the period.
- A decision must be made as to what role students' choice plays in the I/E period.
- A computer management program with capability of tracking students' I/E choice/assignment and attendance is necessary.
- Clear, consistent, and involved leadership is required to ensure that assessment, data analysis, tiering, planning intervention and enrichment instruction, and progress monitoring all are carried through.
- Time must be allocated for planning for groupings and instructional activities.



# Key Factors: High School I/E and RTI con't.

- A Response to Intervention (RTI) type tier structure based upon clearly defined assessments is necessary to allocate students to Tier 2 and 3 interventions.
- Providing extra help during the I/E period on an as needed basis may be a more practical way of delivering Tier 1 interventions than an expectation of differentiation within regular class time.
- It is recommended that specific programs for Tier 2 and Tier 3 interventions be adopted rather than having teachers design their own.
- If Tier 3 students are to receive both Tier 2 and Tier 3 interventions, Tier 2 is provided during the I/E period and Tier 3 most likely replaces a class in the regular schedule.
- A decision must be made as to whether or not special services (i.e. special education or ESOL) will be “the” intervention for some qualifying students during the I/E time or will they be served at a different time by those professionals.
- While some school-wide, grade level, or team activities (assemblies, pep rallies, school pictures, guidance meetings, course registration, seminars, etc.), may usurp some meetings of this period, the primary purpose is for Intervention/Enrichment.

# 7-Period Day Double Dose

Per. 1 AP Chem
Per. 2 AP Chem
Period 3
Period 4
Period 5
Period 6
Period 7

# Double Dose

	Day 1/Sem.1	Day 2/Sem. 2
Block I	English	Science
Block II	Algebra 1 Pt. 1	Algebra 1 Pt.2
Block III	Social Studies	PE/H
Block IV	Elective	Elective

# Parallel Double Dose

	Day 1/Sem.1	Day 2/Sem. 2
Block I	English	Science
Block II	AP Statistics	Computer Class
Block III	Social Studies	PE/H
Block IV	Elective	Elective

# Two Double Doses

	Day 1/Sem.1	Day 2/Sem. 2
Block I	AP English	AP English
Block II	AP Calculus	AP Calculus
Block III	Social Studies	PE/H
Block IV	Elective	Science

# Double-Duty Double Dose

	Day 1/Sem.1	Day 2/Sem. 2
Block I	English	Science
Block II	AP W. History	AP W. History/AVID
Block III	Social Studies	PE/H
Block IV	Elective	Elective

# Key Aspects of Double Dosing

- Adding more instructional time requires a revision of the course pacing guide; how is the additional time going to be utilized effectively?
- Not all students enrolled in an AP course require additional time to learn; when is double dosing justified for all?
- Double dosing eats up FTEs in the department utilizing the practice increasing class size in other departmental sections or requiring additional departmental staffing.
- Double dosing eats up electives in students' schedules; this is especially problematic in 6 and 7 course schedules or when multiple courses are double-dosed in any schedule.

# Key Aspects of Double Dosing, con't.

- Instructors often favor double-dosing for AP courses because it provides an edge over the competition, it reduces the number of groups and preps for the teacher, and it increases the time the instructor spends with “better” students. Consequently, the “default” format for all courses (including AP courses) should be the standard format: one period per day or an every-other-day block. (Please note while the standard format for the 4X4 is a block class that meets daily for one semester, we do not recommend this for AP courses because of the May testing timetable. Most schools that operate a 4X4 schedule, hybridize it for AP courses by embedding an A/B schedule into the master for a limited set of courses.)



# 7-Period Day Support Course

Per. 1 AP A/B Calc.	
P1. D1 AP Support	P1. D2 PE or .5 Elec.
Period 3	
Period 4	
Period 5	
Period 6	
Period 7	

# The 8 A/B Schedule:

## AP Support

	Day 1	Day 2
Block I	U.S. History A.P.	A.P. Support or Elective
Block II	English 12	Spanish IV
Block III	Math Analysis	Physics
Block IV	Elective	Elective

# The 8 A/B Schedule:

## AP Support

	Day 1	Day 2
Block I	A.P. World	A.P. Support or Elective
Block II	English 10	AVID
Block III	Math Analysis	Physics
Block IV	Elective	Elective

# The 4X4 Schedule:

## Algebra I A/B Support

	Day 1	Day 2
Block I	Day 1: Algebra I	Day 2: Algebra 1 Support or Elective
Block II	English 9	Spanish I
Block III	Earth Science	World Hist.
Block IV	Elective	Elective

# The 8 A/B Schedule:

## Algebra 1 Support

	Day 1	Day 2
Block I	Geometry 1	Geometry Support or Elective
Block II	English 9	Spanish I
Block III	Earth Science	World Hist.
Block IV	Elective	Elective

# Critical Issues Regarding AP Support Classes

- AP support classes may be course specific or more generic departmental supports serving multiple AP courses.
- Is an AP support course elective for all or mandatory for some?
- If it is mandatory for some, criteria must be established to determine who must enroll.

# Critical Issues Regarding AP Support Classes, con't.

- If AP support is elective, care must be taken to ensure that instructors do not make the support course a “required” elective, thereby creating a double dose.
- Support courses must be assigned legitimate state-approved course codes so that students may earn credit.
- Students enrolled in support courses must not be penalized by limiting their grade in the AP course, because “It’s not fair that they have more time.”

# Question???

- Under what conditions would it be preferable to double dose the whole group creating an identifiable cohort that bonds together versus differentiating between “Tier 1” students who don’t need AP support and “Tier 2” students, who do need support?



# Scheduling a Summer or Pre-AP Critical Skills Class (or sooner or bigger)

- 4-6 weeks in summer or the semester before attempting social science, English or science AP courses
- Content to include critical reading and writing skills related to the following:
  - ◆ Cause and effect
  - ◆ Deductive reasoning
  - ◆ Inductive reasoning

# Double Blocks of LA and Math with Tutorials: Student Schedule

	Day 1	Day 2
Block I	Language Arts and Reading	
Block II	Algebra I	
Block III	Social Studies	LA Tutorial 45m
		Math Tutorial 45m
Block IV	PE/H	Elective or Earth Science

# Re-cycling in Mathematics

	Sem.1	Sem. 2
Block I	LA	Science
Block II	Algebra I-P1	Algebra I-P1 or P2
Block III	Social Studies	PE/H
Block IV	Elective	Elective

# Recovery Model (Sem. 1; 3 Courses)

(Possibly for Grade 8 Failures)

	Semester 1			Semester 2
	30 Days	30 Days	30 Days	Potential Re-entry
Block I	C1	C2	C3	Course 5
Block II	C1	C2	C3	Course 6
Block III	C1	C2	C3	Course 7
Block IV	C4-Elective			C8-Elective

# Recovery Model (Sem. 2)

(For 1<sup>st</sup> Semester Failures)

	Semester 1	Semester 2		
		30 Days	30 Days	30 Days
Block I	Req. Course 1	C5 (1)	C6(2)	C7
Block II	Req. Course 2	C5 (1)	C6(2)	C7
Block III	Req. Course 3	C5(1)	C6(2)	C7
Block IV	Elective Course 4	Elective Course 8		

# Recovery Model (Sem. 1; 2 Courses)

(Possibly for Grade 8 Failures)

	<b>Semester 1</b>		<b>Semester 2</b>
	<b>45 Days</b>	<b>45 Days</b>	<b>Potential Re-entry</b>
<b>Block I</b>	<b>Eng. 9</b>	<b>Alg. 1</b>	<b>Course 5</b>
<b>Block II</b>	<b>Eng. 9</b>	<b>Alg. 1</b>	<b>Course 6</b>
<b>Block III</b>	<b>C3-Elective</b>		<b>Course 7</b>
<b>Block IV</b>	<b>C4-Elective</b>		<b>C8-Elective</b>

# Recovery Model

## (Sem. 2; 2 Courses)

(For 1<sup>st</sup> semester failures)

	Semester 1	Semester 2	
	90 Days	45 Days	45 Days
<b>Block I</b>	<b>Course 1</b>	<b>C5</b>	<b>C6</b>
<b>Block II</b>	<b>Course 2</b>	<b>C5</b>	<b>C6</b>
<b>Block III</b>	<b>Course 3</b>	<b>C7-Elective</b>	
<b>Block IV</b>	<b>Course 4</b>	<b>C8-Elective</b>	

# Recovery Model

## (Sems. 1 & 2; 4 Courses)

	Semester 1		Semester 2	
	45 Days	45 Days	45 Days	45 Days
<b>Block I</b>	Eng. 9	Alg. 1	US H.	Bio.
<b>Block II</b>	Eng. 9	Alg. 1	US H.	Bio.
<b>Block III</b>	C3-Elective		C7-Elective	
<b>Block IV</b>	C4-Elective		C8-Elective	



# Achieving Common Goals

- ◆ Common Curriculum
- ◆ Common Pacing
- ◆ Common Formative and Summative Assessments
- ◆ Collaborative Monitoring System
- ◆ Common Time for Intervention and Enrichment

# Progressive Algebra

Rettig and Canady, 1998.

T's	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
MA	A1	A2	A3	A4	G1	G2	G3	G4
MB	A1	A2	A3	A4	G1	G2	G3	G3
MC	A1	A2	A3	A3	A4	G1	G2	G2
MD	A1	A2	A2	A3	A4	A4	G1	G1
ME	A1	A1	A2	A2	A3	A4	A4	G1
MF	A1	A1	A2	A2	A3	A3	A4	A4

Key: Q=4.5 weeks; A=Algebra I, 4 Parts; G=Geometry 4 Parts

- "If an educator keeps using the same strategies over and over and the student keeps failing,



who really is the slow learner?"

# Staff Development and Preparation

- Schedule Creation and Modification
  - ◆ Program of studies
  - ◆ Scheduling calendar
- Revision (or creation of) Pacing Guides
- Teaching in the Block
- Policy Changes
- Communications' Plan
- Evaluation Plan

# Staff Development Planning

## I. Subject-Specific Issues: “Surviving and Thriving in a Block Schedule”

**8:30-9:30 Panel “General Instructional Issues”**

**9:30-9:45 Break**

**9:45-11:45 Subject Area Breakouts**

**Topics: Planning, pacing, classroom organization, time use, instructional strategies and assessment.**

**11:45-1:00 Lunch**

**1:00-2:30 Subject Area Breakouts**

**Topic: Sample Lesson**

**2:30-2:45 Break**

**2:45-3:30 Panel “Q and A”**

## **II. Instructional Strategies**

- A. Cooperative Learning (Minimum 2 days)**
- B. Socratic Seminars (2 days)  
(Humanities Teachers)**
- C. Technology (2 days)  
Math/Science/Tech/ Teachers**
- D. Models of Teaching (1-2 days)**

### III. Pacing Guides and Lesson Design (2 days in departments)

### IV. On-going Staff Development

- A. Collaborative sharing by and/or across departments scheduled on a regular basis.**
- B. District-wide sessions by departments to share what works.**
- C. Additional staff development sessions**

When I die,  
I hope it's during a lecture;  
the difference between  
life and death will be so small,  
that I won't notice it!

(Anonymous Student)



Teaching in a block schedule  
is like eternity,  
and eternity is spent  
in one of two places.

John Strebe

# The Four Circles of Engagement

Cognitive Domain

Intellectual  
Challenge

## Active Learning Strategies

Movement

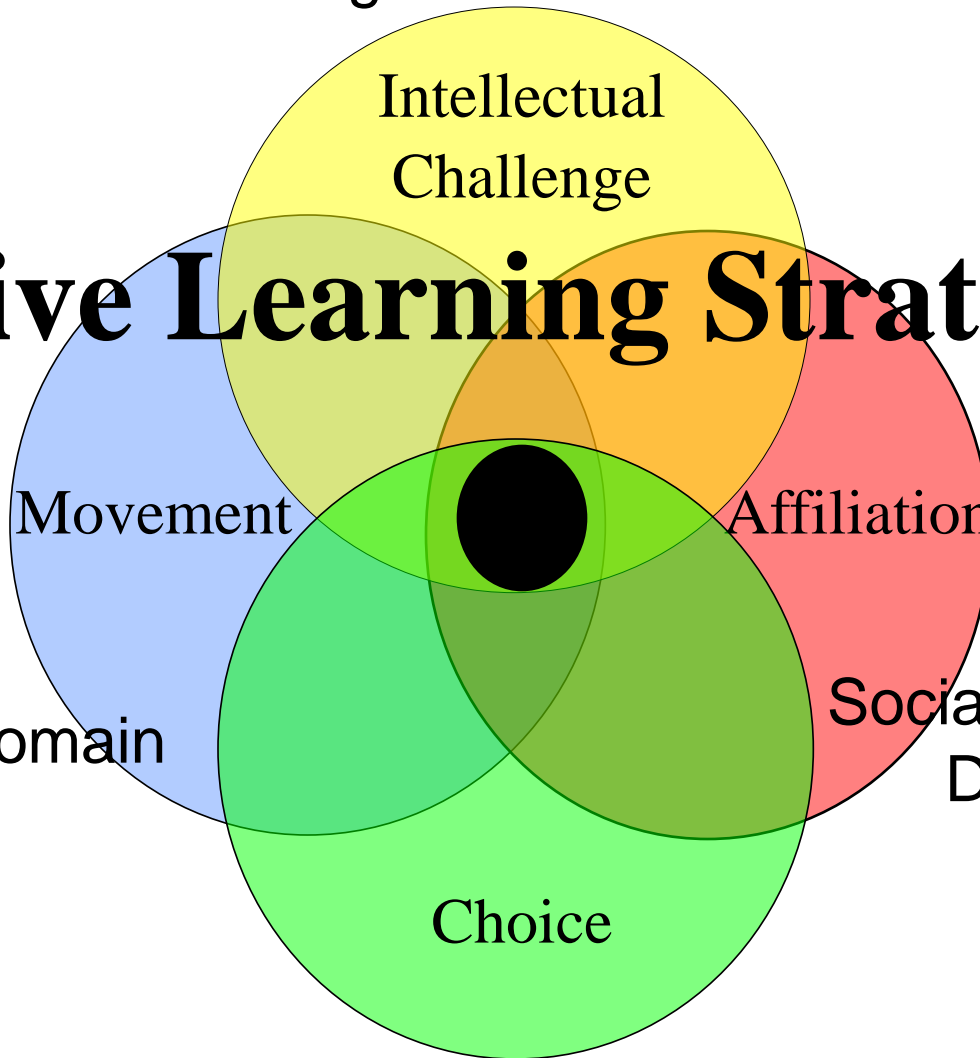
Affiliation

Physical Domain

Social/Emotional  
Domain

Choice

Social/Emotional Domain



# Three-Part Lesson-Design

## 1. Explanation (20-25 mins.)

**Objective**

**Plan for the Day**

**Connections to Previous Learning**

**Homework Review**

**Teach New Material**

## 2. Application (40-45 mins.)

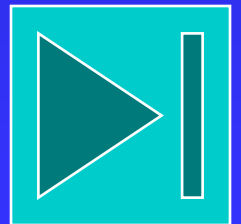
## 3. Synthesis (15-20 mins.)

**Assessment**

**Re-teaching**

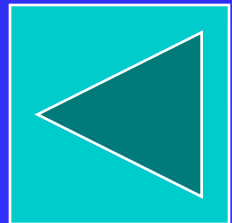
**Establish Connections and Relevance**

**Closure**



# Application Phase

- I. Cooperative Learning
- II. Paideia Seminars
- III. Laboratory
- IV. Simulation
- V. Models of Teaching
  - A. Concept Development
  - B. Inquiry
  - C. Concept Attainment
  - D. Synectics
- VI. Learning Centers or Stations
- VII. Technology
- VIII. Content Area Literacy Strategies



# Research Regarding the General Effects of Engagement on Achievement

Synthesis Study	Number of Effect Sizes	Average Effect Size	Percentile Gain
Bloom, 1976	28	0.75	27
Frederick, 1980	20	0.82	29
Lysakowski & Wahlberg, 1982	22	0.88	31
Wahlberg, 1982	10	0.88	31

As Reported in Marzano, R. (2007). The art and science of teaching. Alexandria, VA: ASCD.

# Stimuli for Student Engagement

- High Energy
- Missing Information
- Self
- Mild Pressure
- Mild Controversy and Competition

# High Energy as Stimulus

- Movement
- Lesson Pacing (especially smooth transitions)
- Teacher Enthusiasm and Intensity

# Missing Information as Stimulus

- Mysteries (Puzzles, riddles, etc.)
- Inquiry Lessons
- Directed Reading (or Listening) Thinking Activities (DRTA, DLTA)



# Self as Stimulus

- Student Interests
- Student Choices
- Material Relevant to Current Existence

# Mild Pressure as Stimulus

- Appropriate level of pressure
  - Questioning techniques including “wait time” and individual response boards
  - Intellectual Challenge
- 
- Key: Pressure that is too intense or too long will cause stress that has a negative impact on learning and well-being.

# Mild Controversy and Competition as Stimuli

- Games/Contests
- Seminars
- Discussions
- Debates
- Key: Controversy must not be too “controversial.”  
Competition must not be too intense. Losing teams and/or individuals must not feel devalued.

# How to Fail When Implementing a New Schedule

- I. Mess-up the Process
  - A. Don't identify the goals.
  - B. Start with an administrative edict.
  - C. Let the study committee dominate.
  - D. Don't involve the parents.
  - E. Don't involve the students.
  - F. Don't involve the central office.
  - G. Don't involve the union.

# How to Fail When Implementing a New Schedule con't.

## H. Do an incomplete study.

1. Don't read and do research.
2. Don't visit other schools.
3. Don't do a mock master schedule.
4. Don't create sample teacher and student schedules.
5. Don't address benefits for both students and teachers.

# How to Fail When Implementing a New Schedule con't.

## II. Do Poor Planning

- A. Don't create pacing guides.
- B. Assume teachers will change instruction to fit the block without staff development assistance.
- C. Don't change school policies to be in line with the new schedule.

# How to Fail When Implementing a New Schedule con't.

- III. Create a Poorly Constructed Schedule
  - A. **Don't balance teams academically.**
  - B. **Make sure you have unequal class times.**
  - C. **Create short chunks of unusable time.**
  - D. **Create split periods to run lunch.**
  - E. **Make sure students can't take (fill in the blank) "because of the schedule."**
- IV. **Don't Continue to do Staff Development After the first year.**
- V. **Don't Plan to Evaluate until Someone Asks for It.**

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